## IN THE CLAIMS

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1.    (Original) A system for transcoding compressed video signal, including a plurality of pictures, comprising:

an estimator to gather information and estimate the signal characteristics about the video signal;

a decoder to completely or partially decode the compressed video signal, and

an encoder to compress the reconstructed video signal according to a coding scheme devised on the estimated signal characteristics from the estimator.

2.    (Original) A transcoding system according to claim 1, wherein said estimator is a look-ahead estimator which gathers information from the incoming compressed video signal and the decoder to estimate the signal characteristics of both the future incoming pictures and current picture.

3.    (Currently amended) A transcoding system according to claim 1, wherein said estimator derives the picturesignal complexity of the current picture being transcoded.

4.    (Original) A transcoding system according to claim 2, wherein said estimator estimates the complexity of each portion of the picture.

5.    (Original) A transcoding system according to claim 4, wherein said portion is a slice of the picture.

6.    (Original) A transcoding system according to claim 4, wherein said portion is a macroblock of the picture.

7.    (Currently amended) A transcoding system according to claim 3, wherein said picture complexity is estimated by a function of the total bits and the average quantization step size used to code the picture in the first coding scheme.

8.    (Currently amended)  A transcoding system according to claim 3, wherein said picture complexity is estimated by a function of the total bits and average quantization step size used to code the portion of the picture in the first coding scheme.

9.    (New)  A method for video transcoding, comprising:

decoding, at least partially, a compressed video signal to produce an at least partially reconstructed video signal, said compressed video signal being a data stream coded by a first coding scheme;

determining a current picture complexity for a portion of a current picture in said at least partially reconstructed video signal;

selecting a second coding scheme based on said current picture complexity; and

encoding said current picture using said second coding scheme and said current picture complexity.

10.   (New)  The method according to claim 9, further comprising:

determining current signal characteristics for said current picture; and

using said current signal characteristics in selecting said second coding scheme.

11.   (New)  The method according to claim 10, further comprising:

using said current signal characteristics in encoding said current picture.

12.   (New)  The method according to claim 9, further comprising:

determining a future picture complexity for a portion of a future picture in said at least partially reconstructed video signal; and

using said future picture complexity in selecting said second coding scheme.

13.   (New)  The method according to claim 12, further comprising:

using said future picture complexity in encoding said current picture.

3

14.  (New)  The method according to claim 12, further comprising:

   determining future signal characteristics for said future picture; and

   using said future signal characteristics in selecting said second coding scheme.

15.  (New)  The method according to claim 14, further comprising:

   using said future signal characteristics in encoding said current picture.

16.  (New)  The method according to claim 12, wherein said portion is a slice.

17.  (New)  The method according to claim 12, wherein said portion is a macroblock.

18.  (New)  The method according to claim 17, further comprising:

   determining a macroblock complexity for said macroblock; and

   using said macroblock complexity in selecting said second coding scheme.

19.  (New)  The method according to claim 18, further comprising:

   using said macroblock complexity in encoding said current picture.

20.  (New)  The method according to claim 9, wherein said current picture complexity is determined by a function of total bits and an average quantization step size used to code said data stream.

21.  (New)  The method according to claim 12, wherein said future picture complexity is determined by a function of total bits and an average quantization step size used to code said data stream.

22.  (New)  The method according to claim 18, wherein said macroblock complexity is determined by a function of total bits and an average quantization step size used to code said data stream.

23.    (New)  The method according to claim 9, wherein said current picture complexity is determined by a function of total bits and an average quantization step size used to code said portion.

24.    (New)  The method according to claim 12, wherein said future picture complexity is determined by a function of total bits and an average quantization step size used to code said portion.

25.    (New)  The method according to claim 18, wherein said macroblock complexity is determined by a function of total bits and an average quantization step size used to code said macroblock.